

USAID MALAWI MISSION FIELD VISIT TO AFRICA RISING FIELD SITES



MARCH 2013

Background -Africa RISING Malawi

African RISING is a program aimed at intensification of mixed-crop livestock farming systems across Africa. The program is being implemented by IITA in Malawi and four other African countries namely Tanzania, Ghana, Mali and Ethiopia. In Malawi, MSU researchers are spearheading field activities with participation of Lilongwe University of Agriculture and Natural Resources (LUANAR) [formerly Bunda College], ICRAF and CIAT. The project is being implemented in Dedza and Ntcheu districts, in an action research mode: where smallholder farmers are co-learning with researchers, principally through the 'mother and baby trial' experimentation approach. Mother trials comprise of at least 10 sustainable intensification technological options, from which farmers can choose a few for testing in their own fields, also according to the nutrient resources they can access. Farmers in an action research group work collectively on the satellite mother trial, usually hosted by a lead farmer, gain confidence and then implement the simplified baby trials in their own fields.

USAID Field visit to Dedza

In order for the USAID Malawi mission officials to gain first hand insights into some of the technologies and methodologies that Africa RISING is employing in Malawi, a brief field trip was organized on the 18th of March to Linthipe Extension Planning area in Dedza district. USAID mission was represented by Mr John Edgar, the Deputy Team Leader, Sustainable Economic Growth. Participants also included staff from the Dedza district agricultural office, headed by Mr Owen Kumwenda and IFPRI Malawi office. Journalists from the Malawi Broadcasting Cooperation Television services were also present to document and disseminate the success stories and also highlight the obtaining challenges that need greater attention by researchers. Farmers in the Linthipe community also turned up in large numbers to welcome the USAID team, with many of the farmers that participate in the Africa RISING program expressing their appreciation to the USAID initiatives.

Field visit highlights (field explanations)

- The delegates were oriented of the actual set up of the treatments in the mother trial and how this is linked to the baby trials. Dr Wezi Mhango, a Senior Lecturer from LUANAR,

who was leading the Malawi Africa RISING team, explained that the field experiments were being implemented in a mother-baby approach to provide a platform for co-learning and evaluation of the performance of various technologies on smallholder farm conditions, and learn about farmer innovations at the baby trials, as dictated by their resource endowments.

- After explanations, participants fully appreciated the need for replication of treatments at each of the mother trials as one of the pre-requisites of scientific rigor. Graduate students use these experiments as platforms for process research and other investigations. The arrangement of treatments across blocks was made the same. With the repeated patterns, a lot of the farmers were able to understand the experimental set. The active participation of 'farmer action group' members at all stages of experimentation (land preparation, pegging, fertilizer application, weeding, ...etc) enabled internalization of the process, much more faster than would be possible with other traditional field experimentation methodologies that relegate farmers to the periphery.
- The technologies being implemented at the mother trials included sole grain legumes (cowpea, groundnut, soybean, pigeonpea, and common bean) or their combinations (doubled up legumes technology), maize-pigeonpea intercropping, and maize with or without fertilizer/manure. In the baby trials, there are few treatments selected by participating farmers, and wholly managed by farmers. The baby trials allow for farmer innovation with application of principles in non-rigid manner. The emphasis is for farmers to use the limited resources that they access in the most efficient manner. As a result of exposure to 'good' farming practices that are followed at the mother trials, a lot of farmers took advantage of the fertilizer and seed resources they accessed through the government of Malawi inputs subsidy program to copy the mother trial practices in their own fields. It is anticipated that the project will produce quick ripple effects on uptake of sustainable production practices in the action sites.
- Farmer participation is vital: Mr Chiyembekezo Chayera who is implementing one of the mother trials sites that was visited, drew the attention of the visitors with much interest as he explained what he did on his field. He expertly narrated all the activities that the farmers in his action group implemented at the mother trial that he is hosting, including a recollection of all the key dates in their crop production calendar. In his own words he said:

“We farmers from Linthipe have worked on this field for quite a long time and we are grateful for this research which will improve fertility of our soils; ensure food security through harvesting of more produce from a small piece of land and increase our income through sales from legume crops which are fetching higher prices at the moment”.

This is in line with the objectives of the project. In addition the project will improve livestock production as farmers can use stalks of cereals and legumes to feed the livestock in addition to the sustainable land management.



Mr. and Mrs. Chayera on their successful mother trial

Figures below show some pictures of participants and some fields visited during the field day (and previous IITA/USAID Washington/MSU field visit)



2.2 Lesson Learnt/ success stories

According to the discussions during the visit, farmers have learnt a number of things which they believe will help to improve their livelihood in the near future.

- ❖ **More yields from a small piece of land;** through mixed cropping of legume crops which do not compete for nutrients but at the same time fix nitrogen in the soil, farmers can realize higher yields from a small piece of land.
- ❖ **Soil fertility improvement;** these technologies can sustain the productivity of their land through nitrogen fixation and incorporation of leafy biomass in the soil. This was clearly observed from the performance of different crop combinations which were planted in the field.
- ❖ **Food security;** The host farmer also expressed gratitude on the diversity of crops in his field which will make him realize bumper yields hence this will make his household to be food secure. These crops have also different maturity period hence cannot be consumed at the same time.
- ❖ **Train other farmers;** being a host farmer Mr. and Mrs. Chayera have received a lot of visitors who come to see what they are doing. In addition, most of the farmers in the surrounding villages are also coming to learn about these new technologies from his field.